

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

MAILED

JUL 31 1996

Ex parte THOMAS J. STEVENS  
and ROBERT H. LEICESTER

PAT.&T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 95-1339  
Application 07/999,732<sup>1</sup>

ON BRIEF

Before LYDDANE, STAAB and JERRY SMITH, Administrative Patent Judges.

LYDDANE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 18 through 29, which are all of the claims pending in the application.

<sup>1</sup> Application for patent filed November 30, 1992. According to applicants, the application is a continuation of Application 07/741,450, filed August 13, 1991, now abandoned.

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The subject matter on appeal is directed to a method of, and an apparatus for, determining the grain direction in a sample of timber. Claims 18 and 22 are exemplary of the invention and a copy thereof, as they appear in the appendix to the appellants' brief, has been appended to this decision.

The reference of record relied upon by the examiner in a rejection of the claims under 35 U.S.C. § 102(b) is:

Stevens  
(Australian Patent)

9050931

Sept. 5, 1990

Claims 18 through 29 stand rejected under 35 U.S.C. § 112, first paragraph, as being based on a specification that fails to set forth the best mode for carrying out the claimed invention and that fails to provide an enabling disclosure of the claimed invention.

Claims 18 through 29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by prior Australian Patent issued September 5, 1990.

Rather than reiterate the examiner's statement of the above rejections and the conflicting viewpoints advanced by the examiner and the appellants, we refer to pages 4 and 5 of the examiner's answer, to pages 3 through 16 of the appellants' brief and to the appellants' reply brief for the full exposition thereof.

OPINION

In arriving at our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art, to the declarations of King, Blake, Smith, Lewinson, Clift and Stevens (referred to by appellants on page 5 and 6 of the brief) and to the respective positions advanced by the appellants and by the examiner. Upon evaluation of all the evidence before us, it is our conclusion that none of the rejections proposed by the examiner is proper. Our reasoning for this determination follows.

Considering first the examiner's rejection under 35 U.S.C. § 112, first paragraph, as failing to comply with the best mode requirement of the first paragraph of § 112, we note, as have the appellants, that a proper best mode analysis has two components. First, it must be determined whether the appellants, at the time the application was filed, knew of a mode of practicing the invention that they considered better than any other. This part of the analysis is wholly subjective and resolves whether the appellants must disclose any facts in addition to those sufficient for enablement. Second, if the appellants contemplated such a preferred mode, it must be determined whether the disclosure is adequate to enable one skilled in the art to practice the best

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mode. See Chemcast Corp. v. Arco Industries Corp., 913 F.2d 923, 927, 16 USPQ2d 1033, 1036 (Fed. Cir. 1990). In the present application, our review of the record reveals that the examiner has presented no evidence whatsoever establishing that the appellants, at the time this application was filed (including parent U.S. application 07/741,450, or PCT/AU90/00046 upon which appellants' claim for foreign priority was based), knew of a mode of practicing the invention that they considered better than any other. Accordingly, we cannot sustain the rejection of appealed claims 18 through 29 under 35 U.S.C. § 112, first paragraph, as being based on a disclosure that fails to comply with the best mode requirement.

Turning next to the examiner's rejection based upon the alleged failure of the appellants' disclosure to comply with the enablement requirement of 35 U.S.C. § 112, first paragraph, we observe that the dispositive issue here is whether the appellants' disclosure, considering the level of ordinary skill in the art as of the date of the appellants' application, would have enabled a person of such skill to make and use the appellants' invention without undue experimentation. See In re Strahilevitz, 668 F.2d 1229, 1234, 212 USPQ 561, 565 (CCPA 1982). The threshold step in resolving this issue is to determine whether the examiner has met his burden of proof by advancing acceptable reasoning inconsistent

with enablement. Id. Once this is done, the burden shifts to appellants to rebut this conclusion by presenting evidence to prove that the disclosure in the specification is enabling. See, for example, In re Eynde, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973) and In re Doyle, 482 F.2d 1385, 1392, 179 USPQ 227, 232 (CCPA 1973) and cases cited therein. The scope of disclosure required to support a claim is dependent upon the claim's scope. See In re Moore, 439 F.2d 1232, 1236, 169 USPQ 236, 239 (CCPA 1971).

The alleged failure to comply with the enablement requirement of the first paragraph of § 112 is based on the examiner's position that

[t]wo separate deficiencies have been pointed out: 1) the lack of explicit teaching of how to extract the grain direction in timber and 2) the lack of teaching on how to implement the locked rotation feature [answer, pages 4 and 5].

While we would agree that the details of precisely how these procedures are to be performed may not be specifically stated in appellants' originally filed disclosure, it is our view that the examiner has not advanced any reasoning as to why a person of ordinary skill in the microwave engineering art would be unable to make or use appellants' claimed invention without undue experimentation. Thus, we conclude that the examiner has not met the initial burden of proof of advancing acceptable reasoning inconsistent with enablement.

However, even assuming, arguendo, that the examiner has met the initial burden, the declarations of King, Blake, Smith, Lewinson, Clift and Stevens, filed by appellants during the course of prosecution of this application, clearly confirm that the declarants possess the credentials establishing that they are at least of ordinary skill in the art and also provide evidence sufficient to rebut any presumption of lack of enablement. The declarations of King, Blake, Smith, Lewinson, which were filed with Paper No. 22 on October 20, 1993, clearly establish that Faraday rotators are conventional, that one of ordinary skill in the art would have recognized the need to lock together the incident and transmitted electric field polarizations of the Faraday rotators at  $0^\circ$  or  $90^\circ$  spatial angles to determine characteristics of lumber by the detector as well as how to accomplish the locking, and that the circuitry and devices depicted in Figures 1 and 2 of appellants' drawings are common elements in the art, the operation of which would have been self evident to one of ordinary skill in the microwave engineering art. Moreover, the Clift declaration, filed with Paper No. 27 on May 16, 1994, further elaborates on the conventionality of the rotating means or Faraday rotators of the grain determining apparatus claimed by appellants as well as how

the rotators would be utilized in detecting planes of polarized radiation, that such planes would be set and locked at 90° cross polarized positions and electrically interconnected (paragraphs 8 and 9 of the declaration), and how the grain direction is determinable from the angle of adjustment of the input or output Faraday rotator (paragraph 10 of the declaration). Therefore, we conclude that even if it were considered that the examiner had established a prima facie case of lack of enablement, the evidence submitted by the appellants in the form of the declarations of King, Blake, Smith, Lewinson, Clift and Stevens is sufficient to rebut the prima facie case. Thus, we cannot sustain the examiner's rejection of claims 18 through 29 under 35 U.S.C. § 112, first paragraph, as being based on a nonenabling disclosure.

In view of our finding that appellants' disclosure as originally filed is enabling of the claimed invention, there is no basis for the examiner's rejection of claims 18 through 29 under 35 U.S.C. § 102(b). In particular, we note that the examiner has concluded on page 2 of Paper No. 17, dated April 20, 1993, that in view of the lack of enablement of appellants' parent application, SN 07/741,450, which the instant application is a continuation of, appellants lost the right to the benefit of that earlier filing date of the parent application under 35 U.S.C. § 120. However, in view of the fact that the originally filed disclosure of the parent

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application is the same disclosure filed in the instant application (which was filed pursuant to 37 CFR § 1.62) and since we have concluded that the disclosure of the instant application complies with the provisions of the first paragraph of 35 U.S.C. § 112, appellants clearly are entitled to the benefit of the filing date of the parent application. That being the case, appellants' earlier Australian Patent is not prior art under 35 U.S.C. § 102, and the examiner's rejection of claims 18 through 29 under 35 U.S.C. § 102(b) cannot stand as a matter of law.

Accordingly, the decision of the examiner rejecting claims 18 through 29 under 35 U.S.C. § 112, first paragraph, and under 35 U.S.C. § 102(b) is reversed.

REVERSED

Will. E. Lyddane  
WILLIAM E. LYDDANE  
Administrative Patent Judge

*Lawrence J. Staab*  
LAWRENCE J. STAAB  
Administrative Patent Judge

*Jerry Smith*  
JERRY SMITH  
Administrative Patent Judge

BOARD OF PATENT

APPEALS AND

## INTERFERENCES



CLAIMS 18 and 22

18. A method of determining the grain direction in a sample of timber comprising:

Supplying plane polarised microwave radiation to the sample from a first polarisation rotating means and detecting plane polarised radiation received from the sample after passage through a second polarisation rotating means, characterised by the steps of

- i) locking the planes of polarisation of the first and second polarisation rotating means at a set angle of  $0^{\circ}$  or  $90^{\circ}$  with respect to each other,
- ii) rotatably adjusting the locked together planes of polarisation of the first and second polarisation rotating means as a pair until
  - a) the detector indicates a minimum signal for the case where the planes of polarisation are set at  $90^{\circ}$  with respect to each other, or
  - b) the detector indicates a maximum signal for the case where the planes of polarisation are set at  $0^{\circ}$  with respect to each other,
- iii) determining the grain direction of the timber sample from the angle of adjustment of the first or second polarisation rotating means at the point which provides the said minimum or maximum signal.

22. Apparatus for determining grain direction in  
a sample of timber, comprising:

means for supplying plane polarised microwave  
radiation to a sample of timber;

means for detecting microwave radiation received  
from the sample;

a first polarisation rotating means for rotating the  
plane of polarisation of the microwave radiation that is supplied  
to the sample and in which the plane of polarisation is selectively  
lockable at any desired angle; and

a second polarisation rotating means, positioned in  
front of the detecting means to receive the microwave radiation  
from the sample, for rotating the plane of polarisation of the  
received microwave radiation, the plane of polarisation of the  
second polarisation rotating means also being selectively lockable  
at any desired angle;

wherein the planes of polarisation of the first and  
second polarisation rotating means are lockable at a set angle  
relative to each other and are rotatable as a locked pair in locked  
together orientations; and

wherein the detecting means provides an output signal  
having a magnitude dependent upon the angle between the two planes  
of polarisation and the grain direction of the sample of timber,  
whereby the grain direction is determinable from said output signal  
and degree of rotational adjustment of the locked pair of  
polarisation rotating means.